



ENERGY STAR[®] Copiers: Questions & Answers for Dealers

Introduction

This guide contains two sections. The first is an interpretation of the elements of the ENERGY STAR[®] copier MOU that may be unclear to service representatives or their customers. The second section provides responses to frequently asked questions about the operation of ENERGY STAR copiers. The ENERGY STAR program intends that service technicians representing ENERGY STAR copier Partners, and possibly the key operators of copiers within customers' organizations, will use this as guidance in helping to maintain all the features of ENERGY STAR copiers.

Feel free to use this document in its current format or to customize it to fit your own copiers. For example, the guide states that each manufacturer recommends the types of paper that will offer the best performance with their machines. If you plan to distribute this guide to all your technical staff, or particularly with other user information, you may wish to provide another level of detail specific to your line of copiers.

If there are issues that you frequently encounter that are not covered in this guide, please contact the ENERGY STAR office equipment program manager.

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I. Interpreting the ENERGY STAR[®] Copier MOU and Amendment

Copier MOU and Amendment Summary

1. Specifications:

Tier 1 applies to all ENERGY STAR copier models released through June 30, 1997. Tier 1 requires all copiers to have an auto-off mode pre-set to default times of 30, 60, or 90 minutes for low-, medium- and high-speed copiers, respectively. The power consumed in the off-mode may not exceed 5W for low-speed copiers or 40W for medium- and high-speed copiers. Tier 2 Specifications apply with models released beginning on July 1, 1997. Tier 2 reduces the off-mode power consumption and adds a low-power model, summarized in the following table:

Copier Speed (copies per minute)	Low-Power Mode (Watts)	Recovery Time 30 seconds	Off Mode (Watts)	Off Mode Default Time	Automatic Duplex Mode
$0 < \text{cpm} \leq 20$	None	NA	< 5	$\leq 30 \text{ min}$	No
$20 < \text{cpm} \leq 44$	$3.85 \times \text{cpm} + 5$	Yes	< 15	$\leq 60 \text{ min}$	Optional
$44 < \text{cpm}$	$3.85 \times \text{cpm} + 5$	Recommend ed	< 20	$\leq 90 \text{ min}$	Default

2. Exceptions:

Default Times: The low-power or auto-off mode default time may be extended up to a maximum of 240 minutes.

Off-Mode Power Consumption: If anti-humidity device must be connected due to climate conditions in a specific market area, a copier may exceed the off-mode power specifications.

Automatic Duplex Mode: If an individual customer experiences sizable inconvenience, the default duplex mode may be disabled.

Auto-Off Mode: If a customer experiences sizable inconvenience, the auto-off feature may be disabled.

3. Education and Training

Partners are required to provide both internal training for sales and service representatives and external customer education regarding the specific ENERGY STAR copier features and their financial and environmental benefits. In particular, this education should include discussion of the energy savings achieved by using the auto-off and default duplexing features.

Exceptions to Specifications

Q1: If a customer requests an extended delay time for the auto-off feature, is it OK to change it?

A1: The delay time may be extended to up to 240 minutes (including the time to enter low-power mode). This time extension should eliminate most customer inconveniences that occur during a typical workday. An example of sizable inconvenience that might justify disabling the auto-off feature is a requirement to eliminate warm-up time to allow quick copying in order meet a deadline, which might call for *temporary* disabling of the feature. If the auto-off mode continues to be problematic even after it is set at 240 minutes, there is likely a fundamental conflict between this energy saving feature and the customer's use patterns. In such cases, it may be disabled. If a Partner agrees to disable the auto-off feature for a customer, ENERGY STAR encourages the use of a weekly timer to turn the copier off at the end of the regular work day.

Q2: If the anti-humidity device must be connected due to the humid climate conditions in a given market area, will that model still qualify as ENERGY STAR compliant if it exceeds the off-mode power consumption criteria?

A2: Yes. The ENERGY STAR program allows manufacturers to test a copier with the anti-humidity device disconnected. Manufacturers or dealers should enable the device only for individual customers who have problems related to humidity.

Q3: Can I disable the default duplex setting for a customer?

A3: If the feature is causing a customer sizable inconvenience, the feature may be disabled. "Inconvenience" is a subjective term and Partners are requested to exercise good judgment when considering this exception. Examples of sizable inconvenience pertaining to the default duplex setting might include: 1) an office where almost all copies are required to be in simplex mode, and where the optional simplex mode on the copier is difficult or time-consuming to activate; or 2) the specific copier model does not offer the option to over-ride the default duplex mode for single-page copies or other instances.

Testing Power Consumption

Q4: Will the ENERGY STAR program test Partners' copier models to ensure compliance with the criteria in the MOU?

A4: It is not the US EPA's intent to test Partners' models for compliance. ENERGY STAR is a voluntary program, and as stated in the copier MOU (and in all ENERGY STAR MOUs), Partners are expected to test and ship as ENERGY STAR compliant only those models that meet the stated criteria.

However, in order to promote greater public awareness of energy efficiency, EPA may work with independent testing facilities to measure the power consumption levels of ENERGY STAR labeled office equipment, compared with non-compliant machines. EPA may make the test results public in order to demonstrate to the public the extent of energy savings possible through the program.

Education and Training Requirements

Q5: Are Partners *required* to provide consumer education in their user's manuals and other materials?

A5: Partners are required to conduct some type of customer education program, but EPA does not specify the exact materials or method of distribution that should be undertaken. EPA will provide Partners with materials they can use in their educational efforts.

The purpose of educating customers about the ENERGY STAR features on their copiers is to encourage them to use the features to achieve the maximum energy and cost savings while maintaining a high level of satisfaction with the products. If they are not informed about the energy saving features, customers may think that functioning features such as auto-off are malfunctions, or find the features to be inconvenient without considering the possible benefits of enabling them.

Q6: Must EPA approve the language Partners use to educate consumers about the ENERGY STAR features on our copiers?

A6: EPA provides guidelines for the use of the ENERGY STAR name and logo and provides sample language that Partners can use in educational materials to accompany the logo. Apart from that, EPA does not approve all educational materials that Partners produce, but will provide examples of facts and text that can be used for brochures, advertisements, and other materials. When Partners use information provided by EPA, they are required only to retain the essential facts in a manner that should not be subject to misinterpretation.

Q7: When EPA states that "Partner shall provide product literature on recommended types of recycled copier paper," does this mean that the product information must be printed on recycled paper?

A7: No. EPA intends that Partners will provide information *about* the types of recycled papers that will work best in their copier models. As background, Executive Order #12873 on Recycling and Waste Reduction (revised in 1996), requires federal agencies to purchase copier papers that have at least 20% post-consumer content, to increase to a minimum of 30% post-consumer content in 1999.

II. ENERGY STAR® Features: Questions & Answers for Customers

About ENERGY STAR

Q1: What are the ENERGY STAR features on my copier?

A1: ENERGY STAR compliant copiers offer several features designed to help save energy. The low power mode lets your copier “sleep” while it is not being used, so it consumes much less energy overall. The auto-off feature shuts the copier off automatically after a pre-defined period of inactivity. This ensures that your copier will not be left on overnight or all weekend. Some ENERGY STAR copiers have a default duplex mode, which saves energy by leading to the use of less paper, which has significant embodied energy. Finally, the weekly timer feature turns the copier on and off at pre-set times and days, preventing inadvertent energy consumption when no one is in the office.

Q2: Why should I be concerned about energy efficiency?

A2: Most utilities use fossil fuels (oil, coal, and natural gas) to generate the electricity needed to operate your copier. When these fuels are burned, they release air pollutants such as carbon dioxide, a greenhouse gas leading to global warming, sulfur, which results in acid rain, and nitrous oxides, components of urban smog.

By reducing your energy demand while achieving the same tasks, you increase your energy efficiency and reduce the quantity air pollutants emitted. At the same time, you save money on your utility bill by consuming less electricity each month. The EPA estimates that ENERGY STAR copiers could save U.S. consumers \$200 million annually on their utility bills by the year 2000, and save enough energy to prevent the emission of 650,000 metric tonnes of carbon each year.

Paper Jams

Q3: What causes paper jams?

A3: Most copiers are thoroughly tested for reliability, and should be capable of making a very large number of both single-sided and duplex copies without jamming.

If, however, you are experiencing paper jams, the first potential cause of paper jams is inadequate maintenance of the parts within your copier. In addition, if your copying volume is significantly higher than the manufacturer's rating, this could cause a range of operational problems for you. Using the copier at volumes above the rating cause excessive wear on the parts, which can make document handling within the copier more difficult. Inadequate maintenance leads to similar problems. If your problems are persistent, you may need to make sure that the paper feeders and duplexing unit are set up correctly, that the path adapters are installed correctly, and that the paper and duplexing trays are aligned properly.

Assuming proper maintenance, the most common source of paper jamming problems is the type of paper being used in the copier. Higher quality papers typically will yield optimal reliability. Paper quality is even more critical if you frequently make duplex copies. In most duplex modes, the paper goes through the entire copying process twice. After the first side is copied, paper that has an uneven fiber structure may curl due to the heat of the fusing unit, may have oil on it from the fuser, and the moisture content in the paper will be distributed unevenly because of the heat and pressure in the fusing process. All these changes to the sheet makes it more difficult for poorer quality papers to make it through the paper path successfully, particularly if they go through the path a second time for a duplex copy.

Low quality recycled papers add yet another problem to the paper path. Because the fibers in recycled- content paper may be broken, it is more difficult to manufacture a uniformly structured paper. Uneven structures may lead to more curl. In addition, broken fibers may not bind as well as new fibers, which eventually could lead to small fragments breaking off the sheets as paper dust, which can also cause paper jams. The potential problems with recycled-content papers can be controlled in the manufacturing process, and the runnability of recycled-content paper varies accordingly. Therefore, when using recycled-content papers, it is even more critical to ensure that you are using a high quality paper of consistent specification.

The manufacturer of your copier recommends specific types of paper for the best operation of your copier. The users manual for your copier typically specifying either a specific brand or the weight, recycled content (if applicable), and fiber characteristics most suitable for your copier.

If you are using an appropriate type of paper and jamming continues, make sure you are placing it in the paper tray as recommended on the package. If the jamming continues, try a different brand of paper; sometimes, even if the stated specifications are met, there may be characteristics of a particular brand that work better for your machine.

When you find a quality paper that suits your machine, be sure to store it properly, so it retains its moisture content and is free of contaminants over time.

Duplexing

- Q4: Why does my E NERGY STAR copier count the originals each time it makes a set of duplex copies? Can I disable this feature?
- A4: Copiers that begin copying with the bottom sheet count the originals in a duplexing job to determine whether the number of originals is odd or even. If it is odd, the copier will leave the last side blank; if it is even, it will copy onto each side. Some copiers eliminate this function by requiring users to indicate whether the number of original sides is odd or even. If you would like to disable the counting feature, your users' manual explains how you can do so. Your office might want to set the "disable counting" as an option that users can

select when duplexing. If you disable counting, however, copy jobs with an odd number of single-sided originals will result in a blank side on the back of the first, rather than last, sheet.

Some copiers allow the user to indicate whether the number of single-sided originals is odd or even. This eliminates the need for page counting. In addition, if you are copying from double-sided sheets, the copier will automatically copy all sides, so will not need to count the sheets.

Q5: When I make a single-sided, single-sheet copy on my default duplex copier, the copy remains in the duplexing unit. How do I obtain just a single-sided copy?

A5: The best solution is to override the default duplex mode for a specific copying job. Just use the control panel prior to pressing the "Start" key to indicate that you are making a single-sided copy (1_ 1 copy). If you forget to do so, but make a copy off the glass platen, most copiers will recognize that the job is a single copy and will release the completed job. If your copy is not ejected, the copied sheet is probably in the duplexing unit. On most copiers, the duplexing unit is a drawer accessible either directly (like a paper tray), or inside the front cover. You should be able to simply open the duplexing unit and remove your copy without causing any disruptions to the next copying job.

If you leave the single copy in the duplexing unit, some machines will eject the copy when the "Start" key is next pressed or when the "Reset" (or equivalent) button is pressed; others will instruct the user to remove the sheet from the duplexing unit.

Timers

Q6: We want to change the default setting of the auto-off feature to a shorter/longer delay.

A6: Some copier manufacturers allow you to adjust the default settings, and include the instructions for doing so in your user's manual. If you cannot find such instructions in the users' manual, consult your service representative. The service representative or other technical help may be able to "walk you through" the process of changing the settings over a telephone call, eliminating the need for a service call.

Q7: We want to change the clock setting on the weekly timer feature to suit our actual office use patterns. Can we do this ourselves, or do we need to contact a service representative?

A7: In most cases, you should contact your sales or service representative. They are qualified to make the requested adjustments, which require access codes. In some cases, an office has a "key operator" who is familiar with the operation of the copier. If appropriate, the service representative may elect to provide the key operator with the codes to adjust the weekly timer or other counters.

Low Power Mode

Q8: How do I know if my copier is entering the low power mode?

A8: The specific description of your copier model's characteristics when in low-power mode should be in the user's manual. Some machines have a light to indicate that they are in "Energy Saving" or "Power Save" mode, which is probably the term used for low-power mode. Some models have a different colored light on the "Start" button to indicate a low-power state. With other copiers, no external indicator notifies the user of the mode until a copy is going to be made. If your copier takes more than a few seconds (up to 30 seconds) to be ready after you press the "Start" button, it is in the low-power mode. Some copiers begin to exit the low power mode as soon as they detect activity, such as placing documents, or pressing any keys, so the apparent recovery time will be reduced.

Q9: My ENERGY STAR copier takes too long to recover from low-power mode.

A9: The recovery time on your copier results from the need to re-heat the fuser that fixes toner to your copies. When the copier is in a low power mode, the fuser is allowed to cool off somewhat, saving energy whenever you are not actively making copies. The recovery time should be no more than 30 seconds from low power mode. Depending on the copier model, the actual recovery may begin before you press the "Start" button — some copiers start to recover as soon as they detect any preparatory copying activity, such as placing your documents on the feeder or glass platen, or entering information such as the number of copies required.

Some ENERGY STAR labeled copiers have occupancy sensors on the front of the units. This feature begins the recovery from low power mode as soon as someone approaches the copier, reducing the recovery time that the user will notice.

If the total of 30 seconds is an inconvenience for you, you could extend the default time for entering the low-power mode so the copier will remain in standby mode for more of the work day. Of course, this solution reduces the overall energy and cost savings that are possible, so is recommended only as a last resort option.

Q10: My copier takes too long to enter low-power mode; I'm not saving as much energy as I would like.

A10: The default setting for low power mode is 15 minutes. If you do not use your copier throughout the work day, it may make sense to reduce the default time for entering the off-mode, rather than low-power mode, to 15 minutes, even if your copier is a medium- or high-speed model. This would increase your energy and cost savings, and reduce the wasted standby time of your copier.

If your office only infrequently uses the copier, you may be better off leaving the copier off until the first copies are required, and turning it off before the end of the day. This type of use pattern can maximize your energy savings and reduce your energy cost per copy (if you are not turning the copier on and off too many times during the day).

Paper Use

Q11: What type of paper should I use?

A11: Your manufacturer recommends the specifications for paper that will work best with your copier, sometimes even recommending specific brands of paper. The specifications may include weight, thickness, pulp content, direction of grain, moisture content, and fiber content. You will probably get the best reliability, including in duplex mode, if you work within the guidelines provided in the user's manual.

Within the range of specifications, EPA recommends purchasing paper with at least 20% post-consumer recycled content, to achieve additional energy savings (less energy is required to produce 20% recycled paper than 100% virgin paper).

You can save even more resources by using paper in the lighter range of the recommendations (e.g., use 18 lb paper rather than the U.S. standard of 20 lb paper). In many cases, lighter paper cannot easily be distinguished from standard weight papers.